



Major turnarounds and planned maintenance events are costly yet critical aspects of keeping energy and industrial facilities operating at maximum output. Optimizing contractor man hours on site, managing resource burn, and mitigating safety incidents are all imperative to meet tight schedules and stay on budget. Triax's advanced operational analytics tools are helping industry leaders augment existing processes to save valuable time and millions on their bottom line.

Common Turnaround Issues

All energy and industrial facilities require turnaround maintenance projects, yet **more than 30% of all turnarounds experience significant scheduling delays**. What's more, nearly **80% of turnarounds end up over budget by at least 10%**. However, these overruns can be avoided when organizations have the needed visibility to maximize their planned resources and minimize unexpected costs that can arrive from emergent work or scheduling delays.

By using our Spot-r® solution, **contractors on turnaround projects consistently operate at around 50% time-on-tool**. By geofencing the functional work areas of a facility,

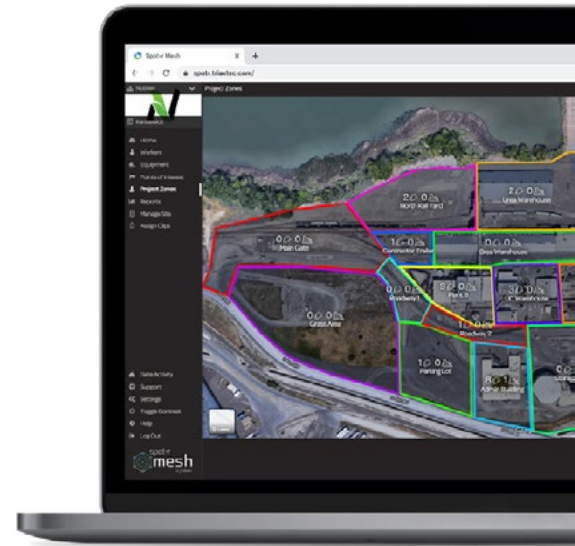
we can automate data collection on where the turnaround workforce is spending their time, whether a contractor or crew's zone has been classified as productive or nonproductive for their scope of work, and how long workers are spending in each zone.



spot-r
by triax®

One way organizations can affect change is by identifying the queuing areas of a facility.

Queuing areas are locations that are a necessary part of a workers' day-to-day job function, but not locations where skilled labor are performing a value-adding task. These areas include materials laydown yards, tool rooms, access gates, and check-in stations to different areas of the facility. Other common queuing areas include permitting and administrative offices. While workers need access to all these locations to complete their tasks, they're also frequently the source of bottlenecks.



Identifying travel patterns around the facility is another opportunity for improvement. With facilities ranging in size from hundreds to thousands of acres, getting from point A to B can be time consuming. Detailed pre-planning strategic placement for common queuing areas can reduce excessive travel, which saves time and labor costs.

A benefit of Spot-r is the ability to identify these bottlenecks so organizations can implement small changes that have a big time and savings impact.

Triax's operational analytics give leaders insight to improve resource management, schedule compliance, and planning. Additionally, worker wearables help pinpoint critical safety and emergency management process improvements that keep workers safe and minimize incidents that cause costly project delays.

Specific Client Use and Outcome

A major fertilizer and chemical client implemented our Spot-r solution for a routine turnaround. Their primary pain point was a lack of visibility into where bottlenecks commonly occurred during maintenance. More specifically, this client wanted to know why they had a shortage of pipe fitters at the beginning of their project. Using our data and reporting, they had immediate access to headcounts to see the number of pipe fitters at the facility each day and their work zone locations to improve time on tool and correct schedule slippage.

Turnaround
Cost

\$60mm

Efficiency
Improvement

5%

Dollar
Savings

\$750k

Return On
Investment

500%

Execute Better Today, Plan Better for Tomorrow

Not only does Spot-r help save time and money on first projects, but by using it for subsequent turnarounds, clients realize greater savings over time. Clients are also using data insights to forecast and plan for future maintenance projects as well as their ongoing operations. What's more, all Spot-r solutions can be deployed at facilities measuring hundreds of acres in a matter of days. The Spot-r network requires no connection to current IT infrastructure yet provides powerful analytical reports that can fully integrate with legacy data through our open API.

Example Turnaround Budget	Potential Savings	
	5% Improved Efficiency	10% Improved Efficiency
\$10MM	\$126K	\$253K
\$100MM	\$1.28MM	\$2.55MM



Learn More

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